



E. I. du Pont de Nemours and Company
DuPont Legal – Room D7096-2
Wilmington, Delaware 19898

Nancy A. Sandell
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RECEIVED

FEB 17 2010

ECEJ-AT

February 9, 2010

CERTIFIED RETURN RECEIPT REQUESTED

Ms. Maureen O'Reilly
ADR Coordinator – Superfund Enforcement
EPA Region 8
1595 Wynkoop Street
Mail Code ENF-RC
Denver, CO 80202-1129

RE: Richardson Flat Superfund Site
Located near Park City, Utah

Dear Ms. O'Reilly:

This constitutes the response of E. I. du Pont de Nemours and Company to the Information Request regarding Richardson Flat Superfund Site. As discussed in our telephone conversation of January 26, 2010 (and confirmed by e-mail), it was agreed that DuPont would respond to all questions by February 22, 2010. DuPont will supplement its response should additional information be found which is responsive to the request.

If you have any questions, please call me at 302-774-4406, or the attorney who has responsibility for this site, Guy Johnson at 302-774-5113.

Sincerely,

Nancy A Sandell
Senior Paralegal

NAS:dwd

Enclosure

cc: Guy V. Johnson

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INFORMATION REQUEST

1. Identify the person or persons answering these Questions on behalf of E. I. du Pont de Nemours and Company ("du Pont").

Nancy A. Sandell, Senior Paralegal

2. For each and every Question contained herein, identify all persons consulted in the preparation of the answer.

All contacts are represented by DuPont in-house counsel, Guy Johnson. Any request to speak to a contact should be made through his office at 302-774-5113. Diane Murphy provided the document pertaining to the sale of the Grasselli land in Park City, Utah.

3. For each and every Question contained herein, identify documents consulted, examined, or referred to in the preparation of the answer or that contain information responsive to the Question and provide copies of all such documents.

Attached are two documents that are responsive to questions #9, 10, and #14.

4. Describe du Pont's current and/or past business relationship with Pacific Bridge Company.

After a diligent, good faith search, DuPont has not been able to locate any records or information pertaining to the Pacific Bridge Company. DuPont employs a records retention policy that provides for the orderly maintenance of those records important to the business and in the interest of economy and efficiency provides a specific time frame for the disposal of records that are no longer pertinent to its business or required by law to be maintained. However, since the search is continuing, DuPont will supplement this response if any other documents are found.

5. Provide copies of all lease agreements between du Pont and Pacific Bridge Company relating to mining and/or milling operations in the state of Utah.

Please see response #4.

6. Describe du Pont's involvement with Pacific Bridge Company's mining and/or milling operations in the state of Utah.

Please see response #4.

7. Provide documentation relating to volumes of tailings processed and the amount of metals extracted by Pacific Bridge Company under its lease agreements with du Pont as those agreements pertain to operations in the state of Utah.

Please see response #4.

8. Describe disposal practices utilized by Pacific Bridge Company in its tailings processing operations under its lease agreements with du Pont.

Please see response #4.

9. Describe du Pont's current and/or past business relationship with Grasselli Chemical Company.

DuPont acquired the Grasselli Chemical Company on December 1, 1928. Grasselli transferred all of its assets to DuPont. Grasselli dissolved its corporate existence in 1936, and became part of the Industrial and Biochemicals Department of DuPont.

10. Describe du Pont's involvement with Grasselli Chemical Company's mining and/or milling operations in the state of Utah.

According to the document attached to this Response, prior to Dupont's acquisition of the Grasselli Chemical Company, the latter sold its Park City, Utah holdings (Nov. 30, 1928).

11. Describe Grasselli Chemical Company's involvement in the reprocessing of the Grasselli tailings located near Park City, Utah.

DuPont has not been able to locate any records or information. Please see responses #4 and #10.

12. Provide documentation relating to volumes of tailings processed and the amount of metals extracted by Grasselli Chemical Company in the reprocessing of the Grasselli tailings located near Park City, Utah.

DuPont has not been able to locate any records or information. Please see responses #4 and #10.

13. Describe du Pont's involvement in the reprocessing of the Big Four tailings located near Park City, Utah.

DuPont has not been able to locate any records or information. Please see

responses #4 and #10.

14. Provide copies of deeds and/or other indicia of real property ownership for land located near Park City Utah which was previously or is currently owned by du Pont or its corporate predecessors.

Please see response #10.

15. Provide the names of mining or milling operations that sent materials for processing to facilities owned, leased or operated by Grasselli Chemical Company in the state of Utah.

DuPont has not been able to locate any records or information. Please see responses #4 and #10.

16. Provide all documents and/or other information possessed by or known to du Pont regarding tailings that came to be located at the Site.

DuPont has not been able to locate any records or information. Please see responses #4 and #10.

17. Provide all documents and/or other information possessed by or known to du Pont regarding mining and/or milling processes conducted at the Site.

DuPont has not been able to locate any records or information. Please see responses #4 and #10.

18. Provide all documents and/or other information possessed by or known to du Pont relating to this Site not provided in response to the questions above.

DuPont has not been able to locate any other documents pertaining to the site. However, please see the attachment regarding the history of Grasselli.

NOTARIZED CERTIFICATE

I, Nancy A Sandell having been duly sworn and being of legal age, hereby state:

1. I am the person authorized by E. I. du Pont de Nemours and Company to respond to the Environmental Protection Agency's (EPA's) request for information concerning the Standard Mine Superfund Site located in Gunnison County, Colorado.
2. I have made a complete and thorough review of all documents, information, and sources relevant to the request.
3. I hereby certify that the attached response to EPA's request is true, accurate, and complete and contains all information and documents responsive to the request.

Name

Nancy A Sandell
Nancy A Sandell

Title

Senior Paralegal

Subscribed and sworn to me this 8th day of February, 2010.

(Seal)

Notary Public: Denise A. Crew

My Commission Expires on: 2-7-11

My Address is: 1007 Market Street
Legal - D7090
Wilmington, DE 19878

DENISE A. CREW
NOTARY PUBLIC
STATE OF DELAWARE

My commission expires Feb. 7, 2011

No. 1208 Rokeby Realty CompanySTATE UtahPark CityCOUNTY SummitDESC. Approximately 185 acres (purchased from Grasselli Chemical Co., November 30, 1928)DUE State, etc. before 11/30 PERIODPAYABLE County Treasurer

COVERED

To

YEAR	ASSESS.	RATE	State, etc.	PAID		PAID		PAID	REMARKS
1933	564.00	2.46	13.87	10/20/33					
1934	565.00	2.28	12.89	10/12/34					
1935	565.00	2.63	14.87	10/14/35					
1936	565.00	2.28	12.90	11/6/36					
1937	510.00	2.48	12.62	11/11/37					
1938									
1939									

CHARGE Taxes:

LEASE

EXPIRES

Grasselli Chemical Co.

Grasselli Chemicals Department

Products—Commercial and Chemically Pure Acids; Inorganic Heavy Chemicals; Zinc, Zinc Dust, Sherardizing Zinc; Tinning and Soldering Fluxes; Wood Preservatives; Insecticides, Fungicides; Plating Chemicals; Tanning Chemicals and Supplies.

General Offices—Wilmington, Del.

Branch Sales Offices—Atlanta, Ga.; Birmingham, Ala.; Boston, Mass.; Charlotte, N. C.; Chicago, Ill.; Cincinnati, Ohio; Cleveland,

Ohio; Detroit, Mich.; Milwaukee, Wis.; New Haven, Conn.; New Orleans, La.; New York, N. Y.; Philadelphia, Pa.; Pittsburgh, Pa.; Rensselaer, N. Y.; St. Louis, Mo.; St. Paul, Minn.; Sodus, N. Y.; Wenatchee, Wash.

Plants—Canton, Ohio; Cleveland, Ohio; Detroit, Mich.; East Chicago, Ind.; Fortville, Ind.; Grasselli, N. J.; Lockland, Ohio; Meadowbrook, W. Va.; New Castle, Pa.; Niles, Ohio; Paulsboro, N. J.; Philadelphia, Pa.; Toledo, Ohio; Weirton, W. Va.; Wurtland, Ky.

American Zinc Products Company (Indiana) (100% OWNED)

Products—Sheet and Strip Zinc and Zinc Products.

General Offices—Greencastle, Ind.

Plant—Greencastle, Ind.

When the du Pont Company acquired the business of Harrison Brothers & Company in 1917, the accumulated facilities of a great manufacturing organization were acquired. One of these manufactures was sulfuric acid, which is used directly or indirectly in virtually every industry. Among other Harrison products were nitric, muriatic, acetic, and lactic acids; strontium nitrate; and alums. Since du Pont acquired the business, these products have been improved and others have been added, including anhydrous sodium sulfate, barium chloride, formic acid, and alumina hydrate.

The company's facilities for producing acids and heavy chemicals were further expanded in 1928, with the consolidation of The Grasselli Chemical Company, which had been established in 1839. This placed the du Pont Company among the largest producers of heavy chemicals. In 1936, the Grasselli Company was dissolved, and the Grasselli Chemicals Department was formed to take over the business.

The Grasselli Chemical consolidation also made du Pont a factor in zinc smelting and provided facilities for producing such plating materials as cadmium salts, metallic cadmium, and zinc salts. A new process of plating with cadmium was developed by Grasselli and provides unusual protection against metallic corrosion.

Various chemicals for spraying and dusting to protect fruit trees and farm crops from destructive diseases and insects also are produced by Grasselli.

Grasselli operates 16 strategically located plants in which are manufactured sulfuric acid by both contact and chamber processes; nitric, muriatic, chlorosulfonic, chromic, acetic, formic, and lactic acids; ammonia and potash alums; ammonium chloride; aluminum chloride and sulfate; barium chloride; lead acetate; sodium and potassium silicates; mono-, di-, tri-, and tetra-sodium phosphates; sodium sulfate, bisulfate, sulfite, bisulfite, hyposulfite, and sulfide; sodium fluo-silicate; strontium nitrate; slab zinc, zinc dust, zinc sulfate, zinc chloride, chromated zinc chloride, and zinc ammonium chloride; chemically pure (C.P.) acids and ammonia; insecticide and fungicide chemicals; wood preserving salts; sulfamic acid and sulfamates; fire retardants; acid inhibitors; soldering and tinning fluxes; fly spray ingredient; acids, salts, and metal anodes for electroplating.

Research laboratories are situated in Cleveland, Ohio, and Wilmington, Del., and there are works laboratories at the various plants. The Wilmington laboratory is fully equipped for pest-control studies.

THE GRASSELLI CHEMICAL COMPANY (OHIO)

Significant Dates

Incorporated: June 10, 1885.

Du Pont entry into Company: December 1, 1928.

Du Pont acquired 100%: Not applicable.

Years included in consolidation: None

Disposition: Dissolved after distribution of du Pont Co. shares received in exchange for business and properties.

Principal Products and/or Nature of Business

Manufactured heavy chemicals, acids, fertilizers, zinc products, insecticides, fungicides and explosives.

Plants: Grasselli, N.J.; East Chicago, Terre Haute and Fortville, Ind.; Cleveland, Canton, Lockland, Niles and Toledo, Ohio; Birmingham, Dothan and Gadsden, Ala.; Meadowbrook and Weirton, West Va.; Wurtland, Ky.; Beaver Falls, New Castle, Quaker Falls, Sinnemahoning and Walford, Pa.; Seneca, Ill.; and Hamilton, Ontario, Canada.

Last Officers and Directors

Officers

President:	T. S. Grasselli
First V-P. and	
Treasurer:	E. R. Grasselli
Vice-Pres.:	G. E. Fisher,
	A. C. Bailey &
	J. H. D. Rodier
Secretary:	E. R. Bailey

Directors

T. S. Grasselli, Chairman
A. C. Bailey, E. R. Bailey,
W. T. Cashman, J. H. Dunbar,
G. E. Fisher, E. W. Furst,
E. R. Grasselli, O. M. Hook,
H. P. John, H. P. Mansfield
J. W. O'Brien, J. H. D. Rodier,
S. Russell and A. Squire

History of Company

The business was founded by E. R. Grasselli in Cincinnati in 1839, and engaged principally in the development of sulphuric acid and other mineral acids. In 1869, a plant was started in Cleveland, Ohio, for the production of a similar line of products. In 1885, The Grasselli

THE GRASSELLI CHEMICAL COMPANY (OHIO)

History of Company (Continued)

Chemical Company (Ohio) was incorporated and in 1889, the Marsh & Harwood interests joined the company. There followed a period of expansion of plant investment and diversification of product until in 1928 the company ranked among the foremost producers of chemicals in the United States.

In order to increase its own general chemical business and obtain a position in the Middle West, the du Pont Co. started negotiations in 1928 for the acquisition of the business and properties of The Grasselli Chemical Company (Ohio). An agreement of reorganization dated October 23, 1928 between du Pont Co. and The Grasselli Chemical Company (Ohio) provided that Grasselli transfer all of its assets to du Pont in consideration for which du Pont would assume the liabilities of Grasselli, including obligation to redeem its Preferred Stock on December 31, 1928, and deliver no par value common shares equal in number to one-fifth of the outstanding common shares of Grasselli as of December 1, 1928.

Accordingly, du Pont Co. issued 149,392 no par value shares of its common capital stock, at a declared value of \$63,690,600 and having a market value of \$73,202,080, to Grasselli for distribution pro rata to the stockholders of Grasselli. Thereafter, The Grasselli Chemical Company (Ohio) wound up its affairs and dissolved its corporate existence.

History of Investment

None. Du Pont Co. acquired only the assets of the company.

Capitalization at date of purchase

Not applicable.

THE GRASSELLI CHEMICALS DEPARTMENT
E. I. DU PONT DE NEMOURS & CO., INC.

The first Grasselli venture, forerunner of the Grasselli Chemical Company and of the present Grasselli Department of E. I. du Pont de Nemours and Company, was established in April, 1839, in Cincinnati, Ohio, on a site on Front Street, near the Ohio River, and extending along Martin Street to Third Street.

Sulfuric acid was the firm's principal product in the early days of its operations. Makers of soap and candles were its largest customers. During the War Between the States, chloroform, newly-developed, was supplied to the medical services of the Union forces.

With the expansion of the petroleum industry during the decade opening in 1860, a huge additional demand for sulfuric acid for use in oil refining led to several extensions of the company's original plant. Cleveland soon became the center of the oil refining industry, with the nucleus of the Standard Oil interests already concentrated there.

CLEVELAND PLANT

In 1866, Eugene Ramiro Grasselli, founder of the firm, decided that Cleveland offered the most advantageous location for still further expansion of his enterprises. He bought a tract at Independence Road and East 26th Street, near Broadway, then just outside the corporate limits of Cleveland. There he erected a new plant of his own design.

The new sulfuric acid works included a chamber system, concentrating house with two platinum stills, a boiler house, a packing house and an office building all of brick construction. Eugene Grasselli and his assistants, Daniel Bailey and R. H. Andrews, went to Cleveland in the fall of 1866 to begin building the plant.

Caesar A. Grasselli, 16-year-old son of the founder, accompanied his father to Cleveland, and worked as a bricklayer, plumber, stone mason, machinist, and boiler tender on the construction job. The first sulfuric acid chamber system was brought into production in July, 1867, and all structures were finally completed by the following September.

Sulfuric acid continued to be the major product of the Cleveland plant but early in its operation the company added facilities for making virtually all the types of chemicals manufactured at Cincinnati. Shortly after the Cleveland plant began making sulfuric acid, processes for making muriatic acid and salt cake were placed in operation. Nitric acid was soon added and shortly the plant was marketing a steady output of sulfate of iron and sulfate of copper, aqua ammonia, soda ash, sal soda, Glauber's salts, and sulfate of zinc.

Caesar Grasselli shared increasing responsibility in his father's business. Production was his field, while Eugene, the father, directed overall activities. When Caesar was 26, he was taken into the partnership. The new firm became the Grasselli Chemical Works, E. Grasselli and Son, Manufacturing Chemists, in 1873.

CAESAR A. GRASSELLI

In 1882, upon the death of his father, Caesar Grasselli succeeded his parent as president and head of the family enterprise.

Shortly after assuming direction of the company, he began a business association with E. I. du Pont de Nemours and Company - furnishing acid for the manufacture of nitroglycerine - that continued throughout the subsequent life of the Grasselli Company.

It was through this connection that the Grasselli Company became the first chemical manufacturer to produce sulfuric acid of a strength greater than the 66° Bé. quality, the conventional concentration in which it had been supplied. Lammot du Pont, nephew of General Henry du Pont, then head of the Du Pont Company, in 1884 told Grasselli of the need for a stronger grade of sulfuric acid in the making of nitroglycerine. Mr. du Pont complained that samples of higher strength invariably contained traces of contaminating platinum from the stills used in its concentration.

Mr. Grasselli said he thought he could provide acid up to 97 or 98 percent concentration in carload lots. Mr. du Pont said he didn't doubt it but offered to bet Mr. Grasselli a box of cigars he would fail. The acid shipped to Du Pont tested 97.75 percent. Mr. Grasselli received the cigars from Mr. du Pont. He treasured the empty box as a memento of Grasselli achievement until his death, 44 years later.

The high strength sulfuric acid replaced lower concentrations used till then by nitroglycerine makers, marking a distinct advance by greatly increasing yields of nitroglycerine and greatly lowering costs.

SALT CAKE PIONEER

Salt cake had been produced for many years by Grasselli as a step in the making of soda ash when in 1885, shortly after Caesar

A. Grasselli assumed direction of the company, it was decided to manufacture this product on a commercial scale by a process which yielded highly salable hydrochloric acid as a by-product. The new process offered prospects of reducing overhead if markets could be found for the salt cake.

The cake produced by the unit set up at the Cleveland plant in 1885 was a superior grade, placing the company among the pioneer producers of America. But operatives of the nation's glass factories, largest potential consumers for the new product, were mostly from England and Belgium and resisted efforts to replace imported cake with the domestic brand.

Grasselli salt cake was cheaper than imported brands, but the prejudice operated to forestall sales and the product began to pile up in the company's warehouse. Mr. Grasselli himself determined to undertake the missionary sales work necessary to overcome the prejudice. His first educational effort was launched at the plant of the Cunningham Glass Company, Monacahele, Pa., south of Pittsburgh. Management was eager to try the American product but hesitated to antagonize the operatives.

Grasselli began his drive on the shop level, among workmen on the plant. There he made friends with individual glass makers, becoming intensely interested in the processes of manufacture, particularly of window glass. His sincerity won him a hearing and soon the chief glass workers became impressed by the fact that all the salt cake required to keep the shop working at capacity was available from sources so close by as Cleveland.

Assured that quality of the Grasselli product more than matched that of foreign salt cake, and understanding that delays from

belated arrival of shipments would be overcome, the workmen were persuaded to give the domestic supply a fair test. The trial convinced the glass workers and Cunningham's initial order for Grasselli salt cake amounted to 200 tons. After that the factory continued a steady customer until the Cunningham company went out of business. The Grasselli salt cake produced the best glass ever made by Cunningham, the proprietor told Caesar Grasselli.

FIRM INCORPORATED

During the same year that Grasselli succeeded in establishing market acceptance for salt cake, an important change in the corporate structure of the firm was completed. The partnership of E. Grasselli and Sons, as the business had been styled, was dissolved and the firm was incorporated as the Grasselli Chemical Company. It was capitalized at \$600,000.

Incorporators of the new firm were: Caesar A. Grasselli; his brother, Eugene; Frank K. Glidden, husband of the two Grassellis' sister, Mary; Kennedy B. Bailey; and Daniel K. Bailey, husband of another sister of the Grassellis. Stockholders included these five men and Caesar's five sisters: Mrs. Glidden, Mrs. Bailey, Mrs. Thomas A. Ireland, Mrs. Paul F. Ireland and Mrs. Albert Duffill. Officers were chosen as follows: Caesar Grasselli, president; Eugene Grasselli, vice-president; Daniel K. Bailey, secretary; Kenneth B. Bailey, treasurer.

Four years later the Grasselli company acquired the chemical manufacturing firm of Marsh and Harwood, with plants in Cincinnati and Cleveland, a firm with which Grasselli had been associated for some years through joint ownership of certain plants. A year later

the properties of both companies in Cincinnati were disposed of and all manufacturing there was discontinued.

By the consolidation Grasselli acquired the New Jersey plant of Marsh and Harwood, which today is the Grasselli, N. J., plant of the Grasselli Department of the Du Pont Company. Grasselli for a time maintained its eastern offices in the Old Marsh and Harwood headquarters, in a building at Pearl and Wall Streets, New York, and later moved to 63 Wall Street, then to 80 Maiden Lane and finally in 1917 to 347 Madison Avenue. Capitalization of the Grasselli company was expanded to \$3,000,000 at the time of the consolidation.

This capitalization was increased in 1890 to \$7,500,000 and by the middle of the year following operations had expanded on so large a scale that a plan of committee structure for the management of the business was adopted. As set up in 1891 there were eight committees elected to serve under an executive committee with chairmen as follows: Eugene Grasselli, manufacturing; Daniel Bailey, construction; K. B. Bailey, auditing and finance; H. C. Grant, sales; E. H. Rising, mining; John W. Fox, supply; Daniel Bailey, insurance; F. T. Sholes, tank lines.

EXPANSION

During the prosperity of the McKinley administration, the East Chicago, Indiana, plant acquired in 1892, was expanded and the firm bought another 150-acre site in Lake County, Indiana, as the location for its western plant. Growth of Grasselli continued and in 1902 it was decided to begin manufacturing sulfuric acid by a process utilizing zinc, a step which added zinc smelting to the company's

enterprises. A site near Clarksburg, W. Va., was acquired for the new plant. The new process began producing in May, 1904.

New furnaces were added at the Clarksburg plant from time to time but the economic limit of expansion there was soon reached and a new location for additional units was bought at Meadowbrook, three miles northeast of Clarksburg. By 1916 this unit had become the company's principal smelter. It reached a capacity of 35,000 tons of metal bringing the total output of the company's West Virginia operations to 60,000 tons that year.

As this development was progressing, it was deemed advisable to seek still another field of operations. This time the company bought 265 acres of land at Terre Haute, Ind., with underlying coal sufficient to supply the plant for 40 years. This site was purchased in 1915 and by 1917 the company was operating three smelter plants.

PLANTS IN SOUTH

Meanwhile, the company had continued to expand other chemical lines. A plant was established in Birmingham, Ala., in 1901 and the same year the company acquired the Standard Acid Company plant, at North Tonawanda, N. Y. The Birmingham plant was built to supply sulfuric acid and other chemical products, including superphosphates, under a contract with the Alabama Steel and Wire Company. Acetic acid was produced at the North Tonawanda plant.

Another plant for making sulfuric acid was established at New Castle, Pa., in 1910. Operations there were expanded in 1915

and in 1926 two systems for oxidizing ammonia were installed. The company set up a sulfuric acid plant at Canton, Ohio, in 1911 and in 1924, began to oxidize ammonia there for the production of nitric acid.

A plant for the making of sulfuric acid in Canada was opened in 1911 and production began in November that year. Lime-sulfur was an additional line produced at this plant and acetic acid, muriatic acid, Glauber's salt, nitric acid, and cadmium anodes were gradually added to products being made at the plant located at Hamilton, Canada.

In 1913 Grasselli returned to the neighborhood of its original plant and built a \$250,000 sulfuric acid plant at Lockland, near Cincinnati, Ohio. Muriatic acid and ammonia oxidation processes were later added there. Three years later still another sulfuric acid plant was established, this one at Niles, Ohio, to supply steel works in the Mahoning Valley. An organic chemicals plant was also built at Niles to make sulfur black and later other colors including sulfur blue, sulfur brown and sulfur khaki, widely used for uniforms in World War I.

DYES

Dye intermediates were added in 1919 and sulfur colors continued to be made there and at Grasselli, N. J., in the part of the plant known as the West Works until acquisition of the company by Du Pont in 1928. The company organized the Grasselli Dyestuffs Corporation in 1924, which operated the Rensselaer, N. Y., plant, formerly owned by the Bayer Company and the West Works installation at Grasselli, N. J.

Grasselli also entered the explosives field during World War I, organizing another subsidiary, the Grasselli Powder Company, and purchasing the American High Explosives Company, the Burton Powder Company, and the Cameron Powder Company, all of which operated plants in Pennsylvania. After the war, dynamite and black powder for blasting were manufactured.

A plant to make chloride of zinc was added by the company at Weirton, W. Va., in 1925 and another was built in Toledo, Ohio, in 1926, to produce acids for the growing industrial district and the petroleum refineries and in 1927 a new acid works went into operation at Wurtland, Ky.

Progressive increases of capitalization accompanied these several expansions. In 1913 the authorized \$7,500,000 capitalization was increased to \$20,000,000. By 1926 outstanding common and preferred shares totalled more than \$31,000,000. Earnings meantime had risen from \$1,680,000 for the year 1914 to \$4,149,030 for 1926.

CONSOLIDATION

The Du Pont Company, in 1917, added the accumulated facilities of a long-established acid and heavy chemicals business to its organization by the acquisition of Harrison Brothers and Company. These facilities were further expanded in 1928 by consolidation of the Grasselli and Du Pont interests. In 1936 the Grasselli Company was dissolved, and the present Grasselli Chemicals Department was formed to take over this phase of the Du Pont business.

Among products in the Harrison line, sulfuric acid was important. Other products included: nitric, muriatic, acetic and

lactic acids; strontium nitrate; and alums. Since Du Pont acquired the business, these products have been improved and others, including anhydrous sodium sulfate, barium chloride, formic acid and alumina hydrate have been added. The Grasselli consolidation also made Du Pont a factor in zinc smelting and provided facilities for producing such plating materials as cadmium salts, metallic cadmium, and zinc salts.

A new process for plating with cadmium was developed by Grasselli and provides unusual protection against metallic corrosion. Various chemicals for spraying and dusting to protect fruit trees and farm crops from destructive pests and diseases are also produced by the Grasselli Chemicals Department.

The Department now operates 16 strategically located plants in which are manufactured: sulfuric acid, by both contact and chamber processes; nitric, muriatic, chlorosulfonic, chromic, acetic, formic and lactic acids; ammonia and potash alums; ammonium chloride; aluminum chloride and sulfate; barium chloride; lead acetate; sodium and potassium silicates; mono-, di-, tri-, and tetra-sodium phosphates; sodium sulfate, bisulfate, sulfite, bisulfite, hyposulfite, and sulfide; sodium fluo-silicate; strontium nitrate; slab zinc, zinc dust, zinc sulfate, zinc chloride, chromated zinc chloride, and zinc ammonium chloride; chemically pure (C.P.) acids and ammonia; insecticide and fungicide chemicals; wood preserving salts; sulfamic acid and sulfamates; fire retardants; acid inhibitors; soldering and tinning fluxes; fly spray ingredient; acids, salts, and metal anodes for electroplating.

Research laboratories are situated in Cleveland, Ohio, and in Wilmington and Newark, Del., and there are works laboratories at the various plants. The Wilmington laboratory is fully equipped for pest-control studies.

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Copy: Carl R. Faust
Industrial & Biochemicals Dept.

July 27, 1959

DAVID HUGHES
INDUSTRIAL & BIOCHEMICALS DEPARTMENT
BELLE PLANT

As you requested, here are some pictures and information on the former Grasselli Chemicals Department plants. Let's take them one by one:

Cleveland, Ohio, Works

1. I am enclosing three approved pictures on various aspects of the plant.
2. This was an original plant that du Pont acquired when it acquired the Grasselli Chemical Company in 1928. Our record shows that the plant began operation in 1866.
3. It currently employs 291 persons.
4. It produces sulfuric and other mineral acids; industrial chemicals; sodium and potassium silicate.

Delaware River Plant

1. We do not have any pictures of the plant, but perhaps you might write to Eugene Bell, the plant manager, and he might have something that would be suitable for you.
2. The company acquired this plant from the Cornwell Chemical Company in 1958. It is located near Bristol, Pa., near Philadelphia. The plant began operation in 1959
3. It employs 14 persons.
4. It manufactures sulfuric acid.

East Chicago Works

1. I am enclosing five pictures of various aspects of the operations at this plant
2. The East Chicago Works was acquired in 1928 at the time the company acquired the Grasselli Chemical Company. It went into operation in 1892, according to our records.
3. It employs 359 persons.
4. The plant produces sulfuric and other mineral acids; industrial chemicals; reagent chemicals; sodium silicate; and other

silion products; sulfuric acid; "Ammate" weed killers.

Ecorse Works

1. I am enclosing a selection of pictures which were taken by "Better Living" magazine. I am also enclosing a copy of that issue of "Better Living" which may provide you with some interesting background information (see page 9).

2. According to our records, the plant went into operation in 1929, and a new plant was built there in 1953.

3. It employs 18 persons.

4. It manufactures sulfuric acid.

Fort Hill Works

1. I am sending you one picture of the sulfuric acid unit at the Fort Hill Works.

2. This plant replaced a previous plant at Lockland, Ohio, near Cincinnati which also manufactured sulfuric acid. The Fort Hill Works started up in 1956.

3. It employs 15 people.

4. It manufactures sulfuric acid.

Fortville, Ind., Works

1. I am sending you three pictures from our files, although they are not particularly good, and you may want to use only the over-all view of the plant.

2. The plant was acquired by the du Pont Company at the time it acquired the Grasselli Chemical Company in 1928, and the plant went into operation, according to our records, in 1902.

3. It employs nine persons.

4. It manufactures sodium silicate.

Grasselli Works

1. I am sending just one over-all picture of the Grasselli, N. J., Works.

2. The plant was acquired when the du Pont Company acquired the Grasselli Chemical Company in 1928, and I believe the plant started up in 1885.

3. It employs 431 persons.

4. It produces sulfuric and other mineral acids; industrial chemicals; reagent chemicals; agricultural chemicals; sodium silicate.

James River Works

1. I am sending you two pictures of the James River Works.
2. The plant started up in 1947.
3. It employs 27 persons.
4. It produces sulfuric acid, calcium cyclamate synthetic sweetner.

Houston Works

1. I am sending you two pictures of the Houston Works, La Porte, Texas.
2. The plant started up in 1946.
3. It employs 288 people.
4. It produces agricultural fungicides and herbicides; dimethyl formamide; methylamines.

Philadelphia Works

1. I am sending you two pictures of the Philadelphia Works, but I think only one of them which shows a man and a piece of equipment will be suitable for you.
2. The plant was acquired in 1917 when the du Pont Company acquired Harrison Brothers. According to our records, this plant dates from 1793.
3. It employs 32 persons.
4. It produces lactic and formic acids; ammonium sulfate.

Wurtland Works

1. We do not have any pictures of this plant, but perhaps Eugene Ochaner, the plant manager, might have some in his office, if you care to write to him.
2. This plant started up in 1927.
3. It employs 17 persons.
4. It produces sulfuric acid.

HARLAN L. P. WENDELL

HLPW/vh
Enclosures

(First plant established in Cincinnati - 1839)

CLEVELAND:

Established	1866
First Sulphuric Unit started	1866
" " " finished	1867
Glauber's Salt	1870
Sulphate of Zinc	1870
Nitric Acid	1877
Mixed Acid	1877
Salt Cake	1885
First big flood Feb. 5th	1885
Chloride of Zinc	1893
Chloride of Ammonia	1900
Silicate of Soda	1914
Pinch Ammonia Apparatus	1903
First Zinc Roaster completed	1904
Salt Cake Bldg. destroyed (fire)	1906
Cadmium	1906
Salt Cake Bldg. reconstructed - March	1907
#2 Power Plant started	1907
C. P. Ammonia	1907
Battery Zinc	1907
Cadmium Sulphide	1907
Lime Sulphur Solution	1908
#2 Power Plant finished - Dec.	1908
Sherardizing Zinc	1911
Second big flood - March 25th	1913
G. B. S. Soda - July	1914

CLEVELAND CONT'D:

Cadmium Sulphate	1915
Nogas	1916
Research Laboratory finished April	1917
G. C. Sulph. partly destroyed (fire)	1918
Sys. #1 back in operation - Nov.	1918
" #2 " " " - Apr.	1919
Mech. Salt Cake started - Jan.	1920
Muriatic 6 & 7 - July	1920
First barge brimstone - Oct.	1921
Amm. Oxidation Sys. 2 - Nov.	1921
Mech. Salt Cake finished - July	1922
Amm. Oxidation Sys. 1 - Apr.	1922
Cadmium Hydrate	1923
Cadalyte	1924
Cadmium Anodes	1925
Dry Sulphur Arsenate Mix	1925
Grasselerator 808 - Aug	1926
Zinc Amm. Chloride - June	1926
Contact #1 started constr. Sept.	1927
Ammonium Sulphide	1927
Oil Emulsion	1927
Grasselerator	1927

GRASSELLI, M. J.

Plant acquired	1885
Spur Track	1888
Acid Phosphate (Discontinued 1895 and moved to Birmingham in 1901)	1891

GRASSELLI, N. J. CONT'D:

Water Line	1894
Sound Shore Line	1895
Hypo	1896
Sulphide of Soda	1896
Sulphite of Soda	1899
Acetate of Lead	1901
Acetic Acid	1901
Glacial Acetic	1902
Lithopone #1	1902
Muriate of Tin	1902
Phosphate of Soda - Oct.	1903
Nitric Acid	1903
Tri Sodium Phosphate - Apr.	1904
Con. "Q" Contact - Apr.	1905
Sys. 3-4 Muriatic - Jul.	1906
Battery Zinc	1907
Chloride of Ammonia - Mar.	1910
Silicate of Soda - Apr.	1911
Sulphuric #4 - Apr.	1911
Barium Chloride	1914
Sulphuric 5-6-7 - Aug.	1915
Muriatic #5 - Feb.	1916
" 6-7 - Sept.	1916
Anhydrous Sulphate - Jan.	1917
Lithopone Sys. #2 - Jan.	1917
Chloride Alumina - Dec.	1921
Hydrosulphide - Jun.	1922
Sulphuric 1-2 dism. - June	1922
Lithopone #2 re-con. - Oct.	1922

GRASSELLI, W. J. CONT'D:

Sulphate Alumina - May	1922
Sodium Silico Fluoride	1923
Lithopone #1 re-con. - Jan.	1923
Contact #1 - Jun	1923
" #2 - Jul.	1923
Polysulphide of Soda	1924
Concrete road - Jun	1925
New Office - Nov.	1926
Contact #3 - Oct.	1926
" #4 - Sept.	1927
Plant Food - Feb.	1927

EAST CHICAGO:

Construction started - Dec.	1892
Sulphuric systems operated	1893
Nitric Acid	1896
Muriatic Acid	1897
Glauber Salt	1898
C. P. Sulphuric	1899
C. P. Muriatic	1899
C. P. Nitric	1899
C. P. NH ₄ OH (o)	1899
Silicate of Soda	1901
Acetic Acid	1901
Chloride of Zinc	1902

(o) C. P. Ammonia discontinued at E. Chicago
1906 and moved to Cleveland.

EAST CHICAGO CONT'D:

Ammonia Chloride July	1904
Construction "0"	1905
Arsenate of Lead	1907
Bordeaux Mixture	1907
Verein Contact installed March	1910
Insecticides March	1910
Arsenic Dec	1914
Sulphide of Soda	1916
Zinc Oxide	1916 X ?
Hypo	1917
Sul. Sys. 4 & 5 fire - Sept. 8th	1919
Repaired April	1920
Calcium Arsenate - June	1920
Zinc Oxide rebuilt - Jan	1922
C. P. Sulphuric - June	1922
New Contact started - Dec.	1922
finished - Nov.	1923
C. P. by elect. dist. - July	1924
Litharge - Nov.	1924
First del. brimstone by water - Sept.	1925
Super Sulphate of Soda	1925
Tri Sod. Phos. started - Aug.	1925
Tri Sod. Phos. finished - Jan.	1926
Add'l Zinc Oxide Unit - March	1926
Ammonia Oxidation - Feb	1926
Calcium Arsenate	1927
Plant Food - Jan.	1928
Manganar - Jan.	1928

HAMILTON:

Sulphuric Acid	1911
Lime Sulphur Solution - Jan.	1912
Acetic Acid - Nov.	1913
Muriatic Acid - Dec.	1913
Glauber Salt - May	1914
Nitric Acid	1914
Lime Sulphur burned - Mar.	1921
First del. of brimstone by barge - Oct.	1921
New Contact - Sept.	1923

BIRMINGHAM:

Fertilizer	1901
Acid Phosphate	1901
Sulphuric Sys. #1	1901
" " #2	1906
Silicate of Soda - Tarrant City - Apr.	1928

LOCKLAND:

Sulphuric Acid	1913
Muriatic Acid - Mar.	1915
Warehouse - Jul.	1927

CANTON:

Sulphuric Acid - Dec.	1911
Ammonia Oxidation - Sept.	1924

NILES:

Sulphuric Acid - Dec.	1916
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NEW CASTLE:

Sulphuric Acid #1 - Oct.	1910
" " #2 - July	1915
Ammonia Oxidation #1 - Jan.	1926
" " #2 - Feb.	1926

FORTVILLE:

Silicate of Soda	1902
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WEIRTON:

Plant purchased - Jan.	1925
Black scrap & Zinc Chloride	1925

TOLEDO:

Contact - July	1926
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WURLAND:

Contact - Apr.	1927
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CLARKSBURG:

Construction started	1903
First Spelter produced	1904
Zinc Dust.	1917
Shut down perm. Sept.	1927

MEADOWBROOK:

Construction started July	1910
Operating - March	1911
Block #1 - March	1911

MEADOWBROOK CONT'D.:

Block #2 - April	1911
■ #3 - May	1911
■ #4 - Sept.	1911
■ #5 - Aug.	1912
■ #6 - Sept.	1912
■ #7 - Nov.	1912
■ #8 - Dec.	1912
■ #9 - Oct.	1915
■ #10 - Oct.	1915

TERRE HAUTE:

Construction started - May	1916
Operating - Sept.	1917
Block #1 - Sept.	1917
#2 - Oct.	1917
#3 - Nov.	1917
#4 - Dec.	1917
#5 - Feb.	1918

WAREHOUSES:

St. Louis	1887
St. Paul	1888
Cincinnati	1890
Milwaukee	1892
Paterson	1892
New Orleans	1901
Chicago	1903
Philadelphia	1905
Detroit - Oct.	1905

WAREHOUSES CONT'D.:

Boston	1910
Toronto - Sept.	1911
New Haven - Apr.	1912
Montreal	1912
Albany - Dye - Dec.	1918
" - Chemical - Nov.	1922
Brooklyn - June	1922

ZINC ORE FIELDS:

New Market Property - Apr.	1918
Opened Tri State field in Kansas, Missouri & Okla. - Oct.	1924
New Market shaft placed - July	1925

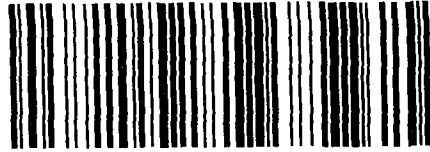
POWER CO.:

Deeds for Cameron, American and Burton received - Nov.	1917
Seneca, Ill. constr. started - May	1927

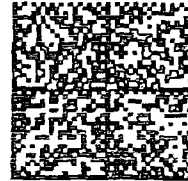


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